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## Requirements specification: learning object, process, and data methodologies

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↳ F.3 LOGICS AND MEANINGS OF PROGRAMS

### General Terms:

Design, Theory

## ↑ REVIEW

"Evangelia (Vagelio) Kavakli"

Specifying information requirements is the most critical and difficult step in developing information systems, yet surprisingly few empirical studies have been conducted on the methodologies used in practice to specify requirements. The study presented in this paper investigates the performance of three

methodologies in aiding novice system analysts who were learning to specify information requirement. The methodologies used were structured techniques, Jackson System Development, and the object-oriented approach; the authors considered them indicative of the process-oriented, data-oriented, and object-oriented methodologies, respectively. Protocol analysis was used to evaluate the methodologies, and the novice analysts who participated in the study were six students enrolled in a course on software engineering in business school of a large university. Of the three methodologies investigated, the novice analysts were best able to apply the process methodology and least able to apply the object methodology. Further, significant learning over repetitive trials occurred only for the process methodology. In spite of the potential limitations of the study (namely the small number of participants and the use of novice analysts only), the findings of the study can be used by IS practitioners, researchers, and instructors as a criterion for the selection of a certain methodology. *Online Computing Reviews Service*

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